

Amendments to the Claims

Claims 1-8 were filed in the application. Please cancel Claim 6, and amend claims 1 and 7 as set forth below, while adding new dependent Claims 9-11 set forth below. As amended, Claim 5 1 restates the subject matter of Claim 6 found to contain allowable subject matter. The other independent claim, Claim 7, is amended to more particularly specify the invention. The list of claims, as amended, is as follows:

10 1. (Currently amended) A device for measuring the liquid volume in a tank comprising:

(a) a load cell positioned adjacent a port in the top wall of the tank;

(b) a modular displacement probe formed in plural discrete detachable segments adapted to be assembled on site, said probe supported by the load cell, and extending down into the tank, the displacement probe having a lower end near the tank bottom, whereby the 15 load measured by the load cell gives the apparent weight of the probe when immersed in the liquid contents of the tank; and

(c) a universal joint suspension mechanism mounted at the tank port for supporting the load cell and the probe, whereby the load cell maintains a constant attitude with respect to the horizontal.

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2. (Original) The device of Claim 1, wherein the probe is formed by substantially identical plural segments united by a joining collar positioned between each successive segment.

3. (Original) The device of Claim 2, further comprising:

- (a) a riser pipe secured in the tank port and extending upwardly therefrom;
- (b) a mounting flange threaded onto the riser pipe;
- (c) a flange cap secured to the flange, to which the hanger bracket is fastened.

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4. (Original) The device of Claim 1, further comprising means mounted adjacent said tank port for measuring the temperature of the liquid contents of the tank.

10 5. (Original) The device of Claim 4, wherein the displacement probe has a vertically extending hollow bore open to the liquid contents of the tank, and supports a temperature measuring string extending downwardly through said hollow chamber, said string having a spaced array of temperature sensors positioned therealong.

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6. (Canceled)

7. (Currently amended) A device for measuring the liquid volume in a tank comprising:

- (a) a load cell positioned adjacent a port in the top wall of the tank;
- (b) a modular displacement probe formed in plural discrete detachable segments adapted to be assembled on site during insertion of the probe into the tank, said probe supported by the load cell, and extending down into the tank, the displacement probe having a lower end near the tank bottom, whereby the load measured by the load cell gives the apparent

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weight of the probe when immersed in the liquid contents of the tank; [and]

(c) coupling means for securing adjacent segments of the probe together during insertion of the probe into the tank without requiring rotation of any part of the probe; and

(d) means associated with the displacement probe for measuring the temperature of the liquid contents of the tank.

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8. (Original) The device of Claim 7, wherein each detachable segment of the probe has a hollow interior which is registered with the hollow interior of the adjacent segment, whereby a hollow central bore is formed throughout the probe, and means for measuring temperature is a string of spaced temperature sensors positioned in said hollow central bore.

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9.(new) The device of Claim 7, wherein the coupling means comprises a joining collar surrounding the adjacent ends of each pair of adjacent segments of the probe and at least one fastener securing each such joining collar and the adjacent probe segments.

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10. (new) The device of Claim 8, wherein the coupling means comprises a joining collar surrounding the adjacent ends of each pair of adjacent segments of the probe and at least one fastener securing each such joining collar and the adjacent probe segments.

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11. (new) The device of Claim 7, further comprising transverse aperture means located near the top of each segment, adapting the segment to be supported by a

screwdriver placed therethrough resting atop the tank with the segment extending into the tank while the next higher segment is secured thereto.

5 [End of Amendments to Claims]